

What is claimed is:

1. An optical fiber characterized by:

an effective core area of not less than $40\mu\text{m}^2$ and not more than $60\mu\text{m}^2$ at least at a wavelength in the wavelength band of $1.5\mu\text{m}$;

a dispersion value of 10 ps/nm/km or less at the wavelength of 1550nm ;

an average value of a dispersion slope of positive and not more than $0.04\text{ ps/nm}^2/\text{km}$ in the wavelength range of 1530 to 1570nm ;

a zero dispersion wavelength of not more than 1400nm ; and

a cutoff wavelength at 2 meters length of 1500nm or less.

2. The optical fiber of claim 1, wherein

said effective core area is not less than $40\mu\text{m}^2$ and not more than $60\mu\text{m}^2$ at the wavelength of 1550nm .

3. The optical fiber of claim 1, wherein

said effective core area is not less than $40\mu\text{m}^2$ and not more than $60\mu\text{m}^2$ in the wavelength range of 1530 to 1570nm .

4. An optical communication system characterized in that an optical fiber according to claim 1 is applied as an optical transmitting path.

5. An optical communication system characterized in that an optical fiber according to claim 2 is applied as an optical transmitting path.

6. An optical communication system characterized in that an optical fiber according to claim 3 is applied as an optical transmitting path.

7. An optical fiber characterized by:

an effective core area of not less than $40\mu\text{m}^2$ and not more than $60\mu\text{m}^2$ at least at a wavelength in the wavelength band of $1.5\mu\text{m}$;

a dispersion value of 8 ps/nm/km or less at a wavelength of 1550nm;

an average value of a dispersion slope of positive and not more than $0.04\text{ ps/nm}^2/\text{km}$ in the wavelength range of 1530 to 1570nm; and

a zero dispersion wavelength of not more than 1400nm.

8. The optical fiber of claim 7, wherein
said effective core area is not less than $40\mu\text{m}^2$ and
not more than $60\mu\text{m}^2$ at the wavelength of 1550nm.

9. The optical fiber of claim 7, wherein
said effective core area is not less than $40\mu\text{m}^2$ and
not more than $60\mu\text{m}^2$ in the wavelength range of 1530 to
1570nm.

10. An optical communication system characterized
in that an optical fiber according to claim 7 is applied
as an optical transmitting path.

11. An optical communication system characterized
in that an optical fiber according to claim 8 is applied
as an optical transmitting path.

12. An optical communication system characterized
in that an optical fiber according to claim 9 is applied
as an optical transmitting path.